

#### CENTRO DE INVESTIGACIÓN Y TECNOLOGÍA AGROALIMENTARIA DE ARAGÓN

# GREMPA: a useful initiative for cooperation in almond research

Rafel Socias i Company

Unidad de Hortofruticultura CITA de Aragón Zaragoza



## Paco Vargas in Murcia showed the positive results of GREMPA

but every history has a beginning not many people may recall...



M. Jacques Souty, Chargé de Mission, La Grande Ferrade, INRA, Bordeaux



Monsieur Jacques SOUTY n'est plus

De même, dès les années 1950, M SOUTY, sensible à la décadence du verger d'Amandiers en France établissait les bases d'un programme de recherche concernant cette espèce



Meeting on horticultural production and marketing in the Mediterranean Basin (Athens, February 1970):

- Increase of almond consumption
- Low productivity
- New French cultivars
- New growing techniques (mechanical harvesting)



A meeting of OECD experts on cooperation in agricultural teaching and technical research IAMZ (Zaragoza, May 1971).



Launching of a working group on almond breeding, both on cultivars and rootstocks.

Course IAMZ. Almond network by J. Souty.

The main reason for launching this proposal was the low productivity of the Mediterranean almond orchards, most of them on non-irrigated and poor soils, unlike the irrigated and fertile Californian orchards.



The objectives suggested for the working group were:

- 1.- To facilitate cooperative research work to solve complex problems, difficult for a single country to tackle.
- 2.- To harmonise research projects through knowledge of the work carried out in other centres, to standardise working techniques and to adopt common reference controls, etc.
- 3.- To propose a distribution of tasks according to objectives, available resources in each centre, environmental conditions, etc.
- 4.- To exploit the results of each group to benefit participants as a whole.

The preliminary activities started immediately. Provisional secretariat established in July 1971 at the Station de Recherches d'Arboriculture Fruitière de la Grande Ferrade (INRA, Bordeaux, France).

Survey to the centres possibly interested in this initiative, in Spain, France, Italy, Greece, Portugal, Romania, Tunisia, Turkey and Iran. The results of the survey were published in January 1972



JANVIER 1972.

- 1.- Research on plant material, such as collections of local and foreign cultivars, breeding by crosses, etc.
- 2.- Works on rootstock selection.
- 3.- Physiological studies related with breeding.

#### Spain:

INIA CRIDA 03 – Estación Experimental de Aula Dei, Zaragoza, with A.J. Felipe, J. Herrero and M.C. Tabuenca.

INIA CRIDA 04 (Estación de Viticultura, Enología y Fruticultura of Reus), with R. Vidal-Barrraquer. INIA CRIDA 08 (Extremadura), with B. Ramos.

#### France:

INRA (Station de Recherches d'Arboriculture Fruitière de La Grande Ferrade, Bordeaux, with the joined farm of Manduel, Nîmes), with R. Bernhard, C. Grasselly and H. Gall.

#### Greece:

Institute of Pomology, Naoussa, with D. Stylianides.

#### **Italy:**

Instituto Sperimentale per la Frutticoltura (Roma), with F. Monastra.

Istituto Sperimentale Agronomico (Bari), with F. Lanza. Istituto di Coltivazione Arboree (Università de Bari), with G. Donno.

Istituto di Coltivazione Arboree (Università de Sassari), with A. Milella.

#### Romania:

Institutul de Cercetari, Pitești, with V. Cociu

#### **Tunisia**:

INRAT – Laboratoire d'Arboriculture Fruitière (Ariana), with A. Jaouani and P. Crossa-Raynaud.

#### Yugoslavia:

Institut zu Jadranske Culture (Split), with A. Vlasić.

SARAGOSSE. ESPAGNE.

NOTE RELATIVE AL

GROUPE D'ETUCE MEDITERRANEEN POUR L'AMANDIER (G.R.E.M.P.A.)

#### ORIGINE DU GROUPE.

C'est es cours de la réution d'Exparts sur la Despiration dans "Emesignement et la Recharche Intentinga Heritoles, organisés par 170.C.D.C. voc la participation de C.I.H.E.A.M., tenne à 50000056 en nel 1971, que fet écidée souhettable la constitution et la mise en overse d'un Forque de Travail international qui aureit à se précouper des problèmes de l'emilioration gindlage de l'Amendier (variaties et porte-gréfes).

(Station d'AULA DEI, à SARADOSSE) et R. BERNHARD (Station de LA GRANDE FERRADE, Pont de la Maya pràs BERDEAUX).

INTERET DES TRAVAUX DE RECHERCHES SUR L'AMANDIER.

La culture de l'Amandiar intéresse l'ensemble des pays du Basain Méditarranéen, mais la production de coux-ei (80 à 80,000 tonnes approximativens demuirs inturfisants pour satirfaire les basoins de la consemunation européa évaluation de l'ordre de 120,000 tonnes). Ce sont les États-Unia qui contribuer frincipalment à combler le déficit.

principalment à combler le déficit.

Sous le climat méditerranéen, l'Amandier paut cependant trouver des conditions faverables à son développement mais, trop souvent abandonné à lui même dens les terrains les plus ingrats, anne soins particuliars, il ne laisse

Certains faits se constatent néanmoins decuis cualques ennées :

- l'augmentation mondiale incessante de la consommetion ; la progression constante depuis IO ens des cours internationaux ; les premiers résultats d'une amblioration verifitale (génétique et sani
- Bes premiers résultats d'une amélioration fortétale (génétique et amite obtenue par divers Charcheurs, notamment en France;
   Le mise au point de techniques de culture plus rationnelles (récolte méconique).

Cos faits ont attiré l'attention des Producteurs, si bien que l'on assiste actuellement à un renouveau de cette culture.

Des efforts concertés méritent donc d'âtre entrepris sans retard pour mettre à la disposition des Producteurs intérvaués du Bassin Méditerranéen la matérial végétal sélectionné devent essurer une production capeble de subven aux besoins du marché européen dans des conditions de qualité et de rentebilité concurrantielles.

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## All this information facilitated the proposal of a working programme

INSTITUT AGRONOMIQUE MEDITERRANEEN

SARAGOSSE. ESPAGNE.

NOTE RELATIVE AU

GROUPE D'ETUDE MEDITERRANEEN POUR L'AMANDIER (G.R.E.M.P.A.)

Pont de la Maye, le 7 mai 1973

Jacques SOUTY, Chargé de Mission INRA (France)

The consensuated coordination of all participants was necessary.

The Manduel farm (near Nîmes, France) was suggested for the first meeting.

Launching programme:

1.- Standardisation of the methods for establishing and evaluating the cultivar collections.

- 2.- Prospecting among local populations of interesting genotypes for their specific traits (late bloom, kernel quality, resistance to *Monilia*, leaf-hole, frost...).
- 3.- Establishment of botanical collections of wild species of the subgenus *Amygdalus* in a small number of locations, but available to all participants.
- 4.- Exchange of parental genotypes.



- 5.- Study of the possibilities of obtaining  $F_1$  cultivars vigorous enough to establish seedling orchards without grafting, mainly for arid regions.
- 6.- The complex problem of drought resistance, both in the rootstocks and in the cultivars, seeking practical selection methods for adaptation to drought.
- 7.- The search for genotypes with progeny showing better resistance to nematodes or to saline conditions.



#### First GREMPA meeting

CENTRE INTERNATIONAL DE HAUTES ETUDES AGRONOMIQUES MEDITERRANEENNES
C.I.H.E.A.M.

Réunion constitutive du Groupe de Recherche et

d'Etudes Mediterranéen pour l'Amandier

(G.R.E.M.P.A.)

Saragosse - Espagne - 19-20 Février 1.974

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J. Souty, promoter of GREMPA, chaired the meeting. Unfortunately, he died several months later, on 13 October 1974.

Four countries present: France, Italy, Spain and Tunisia.

Unable to attend: Bulgaria, Portugal, Romania and Yugoslavia.

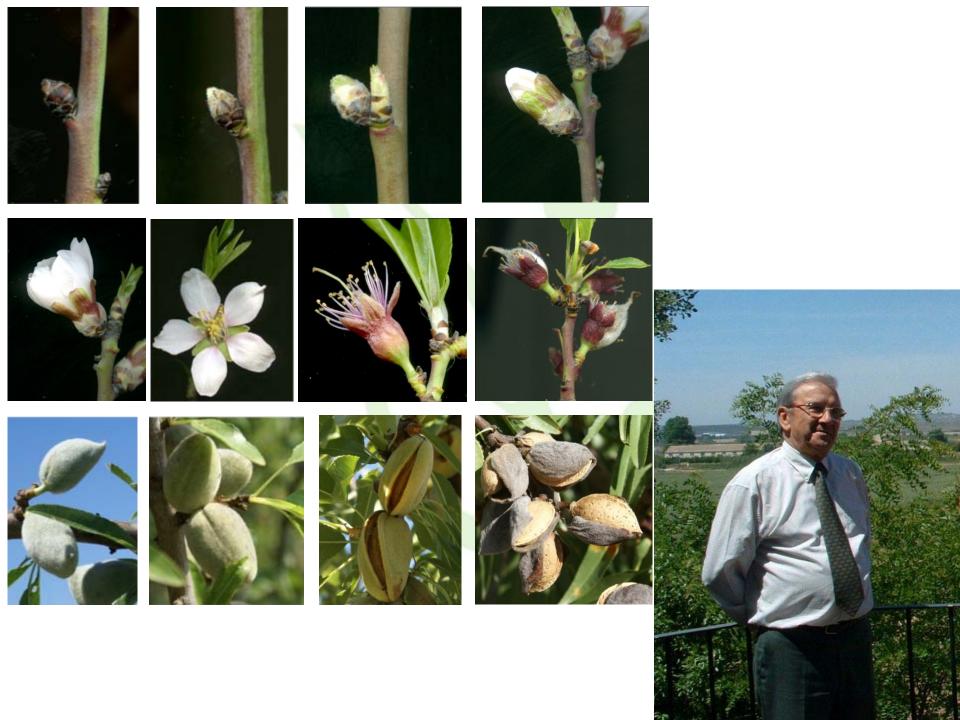
Sent reports: Greece, Iran and Israel.



- 1.- Bibliographical documentation, commissioned to G. Donno.
- 2.- A list of reference cultivars to serve as controls in the different national collections: C. Grasselly and P. Crossa-Raynaud.

The observation methods and recording data would be standardised by a working group formed by A.J. Felipe, C. Grasselly, A. Jouani, F. Monastra and D. Stylianides.

The definition of the blooming stages was one of the first accomplishments of this line of work (Felipe, III GREMPA Colloquium).



- 3.- A list of suitable parents for their exceptional traits was drawn up by A.J. Felipe. It was already mentioned that the self-compatible cultivars would be included in this list.
- 4.- Mutual information on the crosses made by the different breeding programmes, drawing up a list by the INRA-Bordeaux.
- 5.- Collection and maintenance of a botanical collection of the subgenus *Amygdalus* including the species considered relevant by a group formed by A.J. Felipe, C. Grasselly and V. Grigorian.

- 6.- Studying the possibilities of almond growing without grafting directly from seed, by P. Crossa-Raynaud and R. Bernhard.
- 7.- Cooperation in rootstock study and selection, considering the different possibilities of using seedling almonds (INRAT-Ariana of Tunisia or INIA-Badajoz of Spain), almond x peach and peach x plum hybrids (INRA-Bordeaux, France), several plum types (INIA-Zaragoza of Spain).
- 8.- Establishing a common reservoir of almond cultivars, suggesting the station of Bari.

Review of more researchers possibly interested in almond from Spain, Italy, Bulgaria, Turkey, Syria, Cyprus...

II Colloquium in Montpellier in September 1975



#### Botanical expedition Grasselly-Felipe in Afghanistan







CENTRE INTERNATIONAL DES HAUTES ETUDES D'AGRONOMIE MEDITERRANEENNES
C.I.H.E.A.M

2° COLLOQUE

DU

GROUPE DE RECHERCHE ET D'ETUDE

MEDITERRANEEN POUR L'AMANDIER.

MONTPELLIER NIMES 8.11 SEPTEMBRE 1975 DORUMENTO WELL Algeria 2 Romania 1

Bulgaria 1 Spain 7

France 5 Tunisia 1

Iran 1 Turkey 3

Italy 2 Yugoslavia 1

#### **United States 1**



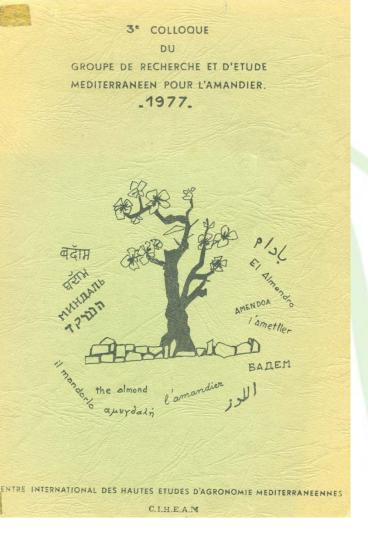
Establishment of a list of 14 reference cultivars by C. Grasselly and P. Crossa-Raynaud

The way of recording blooming time (phenological stages by A.H. Felipe, III Colloquium)

The way to distinguish shell hardness

Cultivar characterisation (Almond descriptors by R. Gülcan, IV Colloquium, and then IBPGR 1981, revised 1984)





#### III Colloquium Bari (Italy) 3-7 October 1977



### Defined by Vargas in Murcia as the Colloquium of self-compatibility

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CONTRIBUTO ALLA CONOSCENZA DELLE CULTIVAR DI MANDORLO (P.AMYGDALUS BATSCH) DELLA PUGLIA:

2) Un quadriennio di ricerche sull'autocompatibilità (1)

ANGELO GODINI

. 181 .

#### HERITABILITY OF SELF-COMPATIBILITY IN ALMOND

R.Socias; A. Felipe INIA - CRIDA 03 ZARAGOZA - SPAIN The number of participants and contributions increased significantly

This Colloquium may be considered as the consolidation of GREMPA

Success of the three following Colloquia:

- Izmir (Turkey) in 1980
- Sfax (Tunisia) in 1982
- Thessaloniki (Greece) in 1985



Success by GREMPA in the 1980s: free association of researchers

Enough for their communication: not necessary publishing in journals of impact

Attracted the interest of other organisms

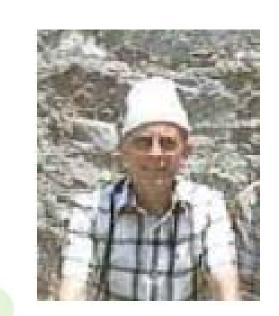


## VII Colloquium Tarragona, 17-19 June 1987

- Introduction of pistachio
- AGRIMED (tensions with G. Rossetto)
- Crossa-Raynaud, unilateral coordinator, retired



#### VIII Colloquium Nîmes, 26-27 June 1990



- Retirement of Charles Grasselly
- FAO Network on Nuts

Yalova (Turkey) on June 19-22, unaware to most of the GREMPA members, whereas some had assigned themselves a prominent position in the network

#### **NETWORK COORDINATOR**

The Network Coordinator (NC) is chosen by all the Network members for a renewable period of four years and will have the following tasks:

#### LIAISON OFFICERS

One of the participants in each sub-network, chosen by common agreement, will act as the liaison officer (LO) for the particular sub-network, within the limits of their concern, for a renewable period of four years. Each LO will be expected

#### Next colloquia organised by the FAO Network.



#### X Colloquium

Meknès, 14-17 October 1996

- Scale of blooming
- Dependence of GREMPA from FAO network

Discussion and different opinions of F.J. Vargas, I. Batlle, E. Germain and F. Monastra



#### Symbols of GREMPA

- Flag
- Anthem
- Investiture of knigths



#### Homage

Jacques Souty

- Antonio J. Felipe
- Charles Grasselly
- Francesco Monastra

... whose enthusiasm and spirit we have not managed to maintain



## Thanks to the IAMZ and its librarians

